

AD-A100 447

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/0 4/2
19305A MLRS, MISSILE NUMBER BN-004, BN-005, BN-006, ROUND NUMBER--ETC(U)
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19305A MILS
Missile No. 08-004, 08-005, 08-006

Round No. Y-13740-4, Y-13740-5, Y-13740-6

24 April 1961

BY

DONALD G. KELLER
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U.S. Meteorological Team

ATMOSPHERIC OBSERVATION
WITH LANDS MILITARY POLARIS PROBES

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INTRODUCTION

19305A MLRS, Missile Numbers BN-004, BN-006, Round Numbers V-137/MD-4, V-138/MD-5 and V-139/MD-6, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1211:38, 1211:42 and 1211:47 MDT, 28 April 1981. The scheduled launch times were 1200, 1200:03 and 1200:06 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (C), relative humidity, dew point (C), density (gm/m³), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at: LC33 and NICK Site to 2km

SITE AND ALTITUDE

(2) Air structure data (rawinsonde) were collected at the following Met Sites.

SITE AND TIME

WSD 0900 MDT
LC-37 1023 MDT
WSD 1100 MDT
*LC-37 1237 MDT

* No data due to ground equipment failure.

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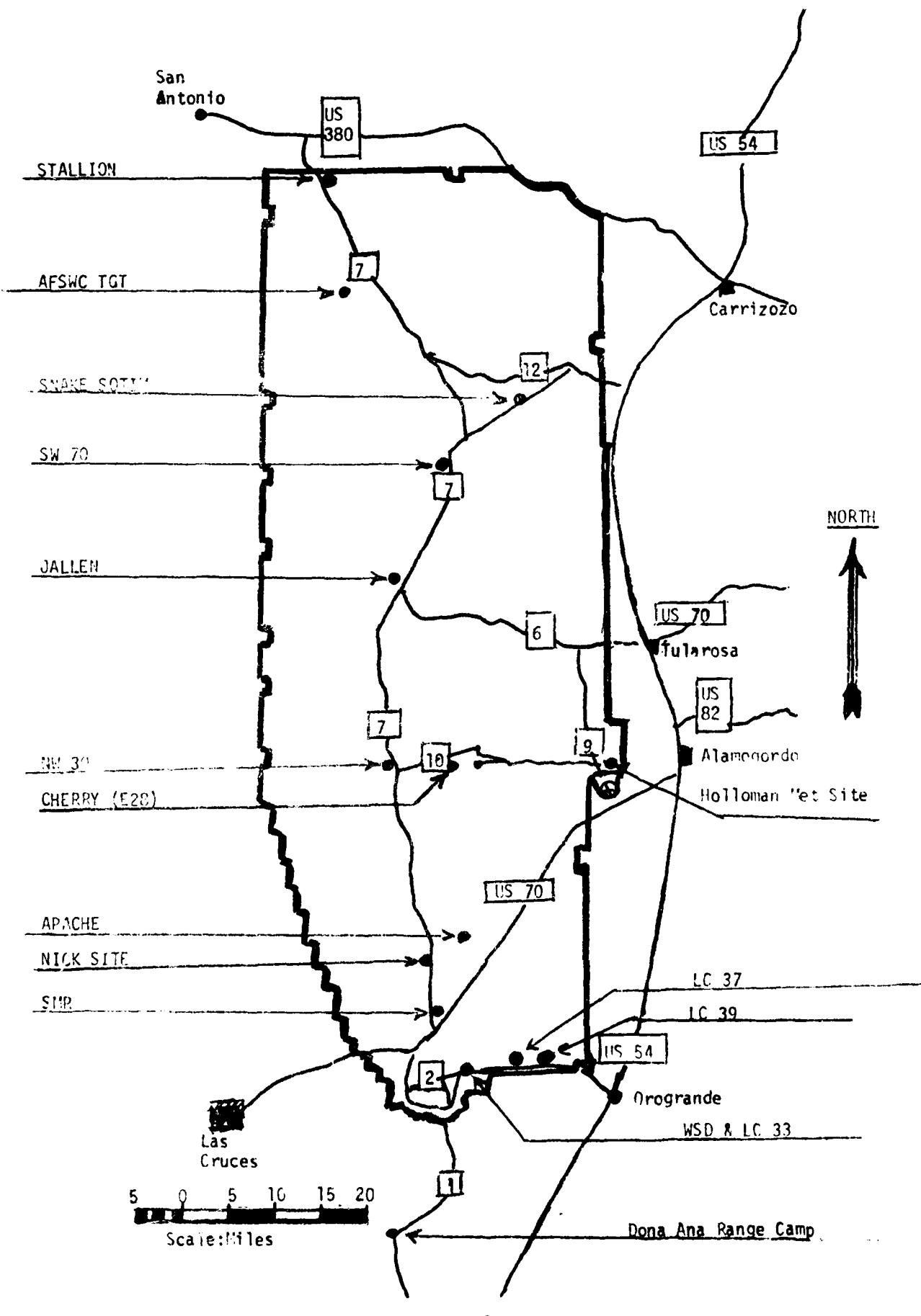


TABLE 1. Surface Observations taken at 1214 MDT,
 28 April 1981, at LC-33, 19305A MLRS,
 Missile No. BN-004, BN-005, BN-006,
 Round No. V-137/MD-4, V-138/MD-5, V-139/MD-6.

ELEVATION	3983	FT/MSL
PRESSURE	878.0	MBS
TEMPERATURE	28.2	°C
RELATIVE HUMIDITY	28	%
DEW POINT	7.9	°C
DENSITY	1008	GM/M ³
WIND SPEED	05	KTS
WIND DIRECTION	360	DEGREES
CLOUD COVER	0/CU/8000	AMT/TYPE/HGT

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS28 April 1981
1214 MDT

POLE #1			POLE #2			POLE #3		
X485,874.29			X485,874.93			X485,877.29		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	017	06	T-30	017	03	T-30	020	06
T-20	011	05	T-20	022	04	T-20	011	05
T-10	013	05	T-10	013	04	T-10	013	05
T0.0	004	04	T0.0	008	03	T0.0	012	05
T+10	005	04	T+10	360	04	T+10	003	04

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	023	06	T-30	096	03
T-20	360	05	T-20	100	02
T-10	001	05	T-10	100	02
T0.0	360	05	T0.0	100	02
T+10	355	06	T+10	100	02

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T30	MISG	MISG	T-30	157	03
T-20	"	"	T-20	176	02
T-10	"	"	T-10	166	02
T0.0	"	"	T0.0	166	03
T+10	"	"	T+10	153	04

TABLE 4T-TIME PILOT-BALLOON MEASURED WIND DATA
DATE 28 April 1981

SITE: LC-33
 TIME: 1211 MDT
 WSTM COORDINATES:
 X= 486,037.24
 Y= 182,350.16
 H= 3977.30

SITE: NICK
 TIME: 1211 MDT
 WSTM COORDINATES:
 X= 470,734.56
 Y= 255,775.64
 H= 4126.57

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS	LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SUPFACE	360	05	SUPFACE	321	03
150	046	08	150	315	05
210	028	08	210	010	06
270	034	08	270	068	09
330	060	09	330	061	11
390	077	09	390	062	08
500	088	07	500	041	06
650	140	04	650	020	07
800	130	03	800	071	07
950	133	02	950	117	08
1150	154	03	1150	137	08
1350	141	06	1350	177	09
1550	199	03	1550	189	11
1750	177	02	1750	151	10
2000	116	09	2000	113	09

TABLE 5

AIMING COMPUTER MET MESSAGES
28 April 1981

WSD 0900 MDT	LC-37 1023 MDT	WSD 1100 MDT
METCM1325065	METCM1325064	METCM1325065
281500122879	281640124877	281700124879
00284001 29360879	00000000 29870877	00142004 29970879
01328003 29330869	01287005 29650867	01236008 29830869
02476001 29270844	02563001 29360843	02628005 29500844
03354002 29130805	03496001 29010804	03627003 29070806
04198006 28750759	04355003 28590758	03243003 28720760
05217009 28360715	05226009 28280714	05233009 28400716
06167008 28000673	06197007 27970672	06184008 28030674
07151006 27520633	07175008 27510631	07163006 27560634
08340006 27080595	08332010 27040594	08346010 27110595
09368014 26760558	09353017 26740556	09362017 26810559
	10335017 26420521	10355018 26480524
	11354017 26040489	11353015 26110491
		12344023 25460445

STATION ALTITUDE 3,934.00' FEET
20 APR. 31
SEC. 10510, 10. 0900 HRS MDT

SIGNIFICANT LEVEL DATA
1130020297
44111 36400
TABLE 6

POSITION OF OMETER	POSITION OF ALTIMETER	POSITION OF THERMOMETER	REL. HUM.
MILLIMETERS	FEET	DEGREES CELSIUS	PERCENT
478.0	3000.0	15.0	57.0
654.0	4773.5	14.8	46.0
350.0	4032.1	15.5	45.0
510.4	5274.2	17.7	40.0
700.0	10319.6	8.5	45.0
537.2	10620.5	8.8	-4.8
615.0	13786.0	-2.4	-9.0
590.0	14915.8	-5.4	17.0
272.0	15976.0	-4.2	-24.9
555.2	16945.5	-6.2	-26.6
538.8	17210.0	-6.7	-27.6
510.6	19115.2	-11.6	-30.6
100.0	24795.4	-26.0	-41.7
362.0	26644.5	-32.3	-46.7
435.0	29704.8	-25.8	-49.5
360.0	31234.5	-40.9	-21.0

TABLE 7

STATION ALTITUDE 3,900.00 FEET MSL
APR. 8, 1960
RELATION 40. 0900 HRS ADT

WEATHER DATA
WHITE SANDS
TABLE 7 CONT

GEODETIC COORDINATES
32°40'04.3 LAT DEG
106°37'03.2 LONG DEG

GEODETIC ALTITUDE FEET	PRESSURE IN MILLIBARS	TEMPERATURE IN DEGREES CELSIUS	RELATIVE HUMIDITY PERCENT	REFRACT. SOUND METERS	REFRACT. SOUND KNOTS	REFRACT. SOUND DEGREES (TH)	REFRACT. SOUND DEGREES (TH)	REFRACT. SOUND DEGREES (TH)	REFRACT. SOUND DEGREES (TH)
2,350.0	1010.5	-25.0	-50.4	20.4	512.4	616.2	219.3	26.1	1.000131
2,400.0	1009.6	-24.4	-46.5	20.7	573.8	614.5	217.4	26.7	1.000129
2,450.0	1008.6	-25.7	-41.5	20.9	565.3	612.8	214.5	27.4	1.000127
2,500.0	1007.5	-27.1	-42.0	21.2	556.6	611.1	211.4	27.8	1.000125
2,550.0	1006.7	-28.5	-43.7	21.4	547.9	609.4	207.6	27.8	1.000123
2,600.0	1005.8	-29.8	-46.4	21.6	539.4	607.7	206.1	27.5	1.000121
2,650.0	1004.9	-31.2	-45.9	21.6	531.1	605.0	206.7	26.8	1.000119
2,700.0	1004.1	-32.4	-46.9	21.9	522.6	604.4	211.9	26.7	1.000117
2,750.0	1003.4	-33.2	-47.6	21.7	513.0	603.5	220.0	27.3	1.000115
2,800.0	1002.8	-33.9	-48.4	21.4	503.6	602.6	223.2	29.5	1.000113
2,850.0	1002.4	-34.7	-49.2	21.1	494.3	601.0	225.2	32.6	1.000111
2,900.0	1001.1	-35.7	-50.1	18.5**	485.7	600.3	237.4	36.2	1.000109
2,950.0	1000.8	-36.9	-50.2	14.4**	477.4	598.9	238.0	40.0	1.000107
3,000.0	1000.8	-38.0	-57.9	10.2**	469.3	597.4			1.000105
3,050.0	1000.9	-39.2	-62.0	6.1**	461.4	595.9			1.000103
3,100.0	1001.1	-40.4	-71.7	1.9**	453.6	594.4			1.000101

** AIR LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3900.00 FEET MSL
29 APR. 01
ASCENSIOIN 49.00%
0900 HRS MDT

MANDATORY LEVELS
1100020297
WHITE SANDS
TABLE 8

GEODETIC COORDINATES
32.40043 LAT UEG
106.37033 LONG UEG

PRESSURE MILLIBARS	GEOPOTENTIAL FLUX	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT		WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS
			AIR DEGREES	DEWPOINT CENTIGRADE		
1012.0	4323.	18.5	6.4	45.	212.2	1.2
1010.0	4321.	16.9	3.4	40.	150.7	1.7
991.0	9423.	12.7	-4	43.	115.9	0.7
707.0	10309.	6.3	-2.9	45.	114.3	9.6
658.0	12305.	3.6	-6.7	46.	69.9	6.8
601.0	14416.	-2.1	-13.4	42.	182.0	3.7
551.0	16666.	-6.4	-26.9	18.	209.0	14.2
501.0	19002.	-11.0	-30.6	16.	214.0	21.4
450.0	21711.	-18.1	-35.3	19.	217.7	22.4
405.0	24554.	-26.0	-41.7	21.	214.0	27.5
352.0	27673.	-33.5	-48.0	22.	223.4	27.9
301.0	31172.	-40.9				

* * ALL LAST D.E ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION 111014 4951.3' EEL
C.R. 61 1023 HRS 10/14/61
ASSEMBLED 48.

SIGNIFICANT LEVEL DATA
J110101005
10-37

at Obs. 1101 COORDINATES
32.40175 LAT E6
106.31232 LONG E6

TABLE 9

MILLIMETERS	TIME OF RECORD	TIME OF RECORD		TIME OF RECORD	TIME OF RECORD
		AT TIDE	AT TIDE		
677.4	4653.4	24.4	7.5	34.0	34.0
565.6	4406.6	22.3	6.3	35.0	35.0
550.0	4355.7	20.5	6.1	39.0	39.0
628.4	5683.6	18.1	5.3	43.0	43.0
360.0	6640.8	16.3	4.6	37.0	37.0
726.4	9326.1	14.6	4.7	42.0	42.0
700.0	10334.7	13.4	4.9	46.0	46.0
346.4	12464.2	12.5	5.0	50.0	50.0
586.4	1512.7	11.6	5.1	54.9	54.9
578.2	15009.7	10.3	5.3	21.2	24.0
561.0	16163.7	9.7	5.7	21.8	24.0
520.0	16138.7	9.0	5.9	25.3	18.0
512.6	16853.9	8.0	6.0	29.4	17.0
560.6	19153.6	7.0	6.0	30.0	17.0
457.0	21374.2	6.0	6.0	31.2	17.0
454.0	21541.9	5.7	6.0	35.0	18.0
470.0	24616.1	5.5	6.0	35.3	18.0
457.2	27278.4	5.0	6.0	41.6	20.0
264.0	29150.2	3.8	6.0	40.2	20.0
534.6	29775.5	3.2	6.0	48.0	20.0
322.0	29830.1	3.0	6.0	49.5	20.0
316.1	36086.9	3.4	6.0		
360.0	31269.2	3.6	6.0		

STATION ALTITUDE 4000.37 FEET
28 APR. 61 1023 HRS MOT
ASSEMBLY 1.0. 5

WEATHER AIR. DATA
1100100055
LC-37

TABLE 10

GEODETIC COORDINATES
32°49'17.5 LAT deg
106°31'23.2 LONG deg

STATION ALTITUDE FEET	PHI SIGHT	THETA SIGHT	ALBEDO	REFRACTIVE INDEX							
FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET
4000.4	37.4	24.4	7.5	34.0	1622.6	573.5	0.0	0.0	0.0	0.0	0.0
4500.6	36.7	22.2	6.3	35.7	1014.7	579.7	0.2	0.2	0.2	0.2	0.2
5000.8	34.7	20.4	6.0	39.2	1063.1	668.8	0.5	0.5	0.5	0.5	0.5
5500.0	32.8	18.7	5.5	42.0	991.2	656.9	0.7	0.7	0.7	0.7	0.7
6000.0	31.1	17.5	4.1	41.0	976.0	665.4	0.9	0.9	0.9	0.9	0.9
6500.0	30.6	16.6	2.2	37.9	964.3	664.2	0.9	0.9	0.9	0.9	0.9
7000.0	29.3	15.4	1.1	37.7	951.0	662.0	0.8	0.8	0.8	0.8	0.8
7500.0	27.1	14.2	0.3	38.6	936.1	661.3	0.4	0.4	0.4	0.4	0.4
8000.0	25.1	12.9	0.5	39.5	925.4	659.9	0.7	0.7	0.7	0.7	0.7
8500.0	24.0	11.7	-1.3	40.5	912.9	658.4	0.9	0.9	0.9	0.9	0.9
9000.0	23.0	10.4	-2.1	41.4	900.6	656.9	1.0	1.0	1.0	1.0	1.0
9500.0	22.1	9.5	-3.6	39.2	887.4	655.6	1.2	1.2	1.2	1.2	1.2
10000.0	20.0	9.3	-6.8	31.3	872.4	655.3	1.5	1.5	1.5	1.5	1.5
10500.0	19.0	8.7	-6.4	26.6	856.6	654.5	1.9	1.9	1.9	1.9	1.9
11000.0	18.0	7.4	-9.7	28.5	846.8	653.0	1.5	1.5	1.5	1.5	1.5
11500.0	17.0	6.6	-10.0	30.4	835.1	651.5	0.6	0.6	0.6	0.6	0.6
12000.0	16.7	4.7	-16.4	32.3	823.7	649.9	0.2	0.2	0.2	0.2	0.2
12500.0	16.0	3.4	-11.0	33.9	812.4	646.4	0.0	0.0	0.0	0.0	0.0
13000.0	15.3	2.0	-13.0	31.9	801.3	646.7	0.7	0.7	0.7	0.7	0.7
13500.0	14.2	0.6	-14.9	30.0	790.3	645.0	1.2	1.2	1.2	1.2	1.2
14000.0	13.1	-0.4	-16.9	28.0	779.5	643.3	0.3	0.3	0.3	0.3	0.3
14500.0	12.0	-2.1	-19.0	26.1	768.9	641.0	1.7	1.7	1.7	1.7	1.7
15000.0	11.7	-5.5	-21.1	24.1	756.4	639.9	0.4	0.4	0.4	0.4	0.4
15500.0	11.0	-4.5	-22.2	23.3	746.2	638.9	0.1	0.1	0.1	0.1	0.1
16000.0	10.2	-4.6	-24.5	19.3	732.6	636.6	0.7	0.7	0.7	0.7	0.7
16500.0	9.5	-5.4	-26.0	17.8	720.9	637.0	1.5	1.5	1.5	1.5	1.5
17000.0	8.4	-5.5	-27.1	17.6	709.8	636.3	1.4	1.4	1.4	1.4	1.4
17500.0	7.3	-7.5	-28.1	17.3	698.9	635.0	0.0	0.0	0.0	0.0	0.0
18000.0	6.2	-6.5	-29.1	17.1	686.2	633.8	0.9	0.9	0.9	0.9	0.9
18500.0	5.1	-9.5	-30.0	17.0	677.2	632.0	0.3	0.3	0.3	0.3	0.3
19000.0	4.0	-10.7	-30.9	17.0	666.9	631.3	0.9	0.9	0.9	0.9	0.9
19500.0	3.0	-16.7	-31.9	17.0	657.0	629.7	0.3	0.3	0.3	0.3	0.3
20000.0	2.0	-12.6	-32.9	17.4	647.3	628.1	0.5	0.5	0.5	0.5	0.5
20500.0	1.0	-14.7	-33.6	17.6	637.0	626.4	1.3	1.3	1.3	1.3	1.3
21000.0	0.0	-10.2	-34.8	17.6	628.4	624.0	0.3	0.3	0.3	0.3	0.3
21500.0	-0.6	-16.8	-31.0	18.0	617.8	623.9	0.1	0.1	0.1	0.1	0.1
22000.0	-0.5	-15.0	-36.3	18.2	609.2	622.3	0.9	0.9	0.9	0.9	0.9
22500.0	-0.4	-19.4	-37.5	18.5	599.1	620.0	0.9	0.9	0.9	0.9	0.9
23000.0	-0.3	-20.4	-31.3	18.6	590.3	618.0	0.1	0.1	0.1	0.1	0.1
23500.0	-0.2	-21.5	-31.3	18.7	581.6	617.1	0.1	0.1	0.1	0.1	0.1

STATION ALTITUDE 4550.00' CEST 152
2000' 81.00' 1023 HRS MDT
ASCENSION ISLAND.

TABLE 10 CON'T

TABLE 10 CON'T

*** A L L S T O O L S A C C E S S R E L A T I V E I M P O R T A N C E V A L U E W A S U S E D I N T E R P O L A T I O N .

TRANSITION ALTITUDE 10000 FT MSL
 08 APR. 1971
 ASCENSION 10000 FT 31023 HRS MDT

TRANSITION ALTITUDE LEVELS
 1160160050
 16-37
 TABLE 11

TRANSITION ALTITUDE	TRANSITION ALTITUDE	TRANSITION ALTITUDE	RLL. PHT.	TRANSITION ALTITUDE
10000	10000	10000	39.5	292.7
9000	9000	9000	6.1	39.5
8000	8000	8000	16.2	16.2
7000	7000	7000	11.8	260.5
6500	6500	6500	16.25	140.6
6000	6000	6000	9.1	4.0
5500	5500	5500	9.4	0.0
5000	5000	5000	10.7	0.5
4500	4500	4500	10.7	0.5
4000	4000	4000	14.76	7.6
3500	3500	3500	16.1	7.6
3000	3000	3000	19.7	17.4
2500	2500	2500	21.7	17.7
2000	2000	2000	21.7	17.7
1500	1500	1500	21.7	17.7
1000	1000	1000	21.7	17.7
500	500	500	21.7	17.7
0	0	0	21.7	17.7

DECODING COORDINATES
 32.40175 LAT LEG
 106.31232 LONG LEG

TOE TELLS, 2000 hrs, 1100 hrs ADT
20 APR. 31
1965

SIGHTING DATA
1130020296
1130020295
TABLE 12

SEODEMIC COORDINATES
32°44'04.3 LAT DEG
116°37'33.5 LONG DEG

TIME 1100 hrs ADT 1965	SIGHTING DATA 1130020296 1130020295	ELEVATION OF SIGHT STRUCTURE		REL. HGT. STRUCTURE
		TIME 1100 hrs ADT 1965	TIME 1100 hrs ADT 1965	
1100 hrs ADT 1965	1130020296	200.0	200.0	36.0
1100 hrs ADT 1965	1130020295	210.0	210.0	36.0
1100 hrs ADT 1965	1130020296	160.0	160.0	45.0
1100 hrs ADT 1965	1130020295	150.0	150.0	38.0
1100 hrs ADT 1965	1130020296	110.0	110.0	41.0
1100 hrs ADT 1965	1130020295	0.0	0.0	25.0
1100 hrs ADT 1965	1130020296	-3.0	-3.0	25.0
1100 hrs ADT 1965	1130020295	-6.0	-6.0	17.0
1100 hrs ADT 1965	1130020296	-10.0	-10.0	17.0
1100 hrs ADT 1965	1130020295	-31.0	-31.0	17.0
1100 hrs ADT 1965	1130020296	-10.0	-10.0	18.0
1100 hrs ADT 1965	1130020295	-26.0	-26.0	19.0
1100 hrs ADT 1965	1130020296	-30.0	-30.0	22.0
1100 hrs ADT 1965	1130020295	-56.0	-56.0	20.0
1100 hrs ADT 1965	1130020296	-58.0	-58.0	
1100 hrs ADT 1965	1130020295	-60.0	-60.0	

CHICAGO METROPOLITAN AREA, ON EIGHT-
MILE SATELLITE
POSITION NO. 29
1100 HRS MDT

TABLE 13
WEATHER DATA
113000Z SEPTEMBER
WHITE SATELLITES

REFLECTIVE ALTIMETER INCHES PER INCH	PRESSURE ALTIMETER INCHES PER INCH	TEMPERATURE DEGREES FAHRENHEIT PER INCH	DEW-POINT DEGREES FAHRENHEIT PER INCH	RELATIVE HUMIDITY PERCENT PER INCH	DENSITY GR/CUBIC METER KNOTS	SPEED OF SOUND KNOTS	DIRECTION LARGE (10) KNOTS	WIND DATA KNOTS PER INCH RELATION	GEOMETRIC COORDINATES 32°40'04.5 LAT 106°37'33.3 LONG
59.046	79.6	29.0	75.0	70.9	1022.0	674.3	69.0	4.1	1.000276
49.996	77.7	25.0	56.0	51.3	1021.8	674.3	79.8	4.1	1.000276
49.966	76.9	23.0	57.0	50.1	1011.3	671.9	63.0	3.3	1.000263
49.936	74.6	21.0	56.0	49.5	1000.7	669.5	51.4	2.7	1.000263
49.906	73.5	19.5	56.1	49.1	988.6	667.6	27.9	2.4	1.000259
49.876	71.9	17.7	42.1	42.1	977.1	665.7	3.0	2.6	1.000256
49.846	70.5	16.0	44.9	44.6	965.6	665.7	540.3	3.1	1.000252
49.816	69.2	15.4	39.9	39.9	956.7	662.9	537.5	2.2	1.000244
49.786	67.8	14.5	•0	38.5	937.0	661.8	29.3	1.4	1.000238
49.756	66.4	13.4	•2	39.4	923.9	660.4	129.1	2.1	1.000234
49.726	65.0	12.2	•9	40.0	911.0	659.1	136.0	4.6	1.000230
49.696	63.9	11.1	•0	40.5	898.6	657.8	135.3	6.6	1.000225
49.666	62.7	10.5	•4	34.7	884.4	656.9	132.9	8.3	1.000218
49.636	61.6	9.8	•7	28.9	870.7	656.0	124.0	8.7	1.000211
49.606	60.7	9.2	•0	25.0	857.8	654.8	116.7	9.0	1.000205
49.576	59.5	7.6	•1	27.2	846.0	653.2	110.7	8.7	1.000201
49.546	58.2	6.2	•2	24.3	834.5	651.6	104.9	8.3	1.000197
49.516	57.0	5.5	•3	23.5	823.1	649.9	99.3	7.6	1.000194
49.486	55.6	4.8	•3	23.5	811.9	648.3	90.2	6.8	1.000191
49.456	54.5	4.2	•4	25.0	800.6	646.6	96.2	5.9	1.000187
49.426	53.3	2.1	•5	25.0	789.9	645.9	119.0	4.6	1.000184
49.396	52.1	•7	•7	25.0	779.2	643.3	101.0	5.1	1.000181
49.366	51.1	•7	•7	25.0	763.7	641.7	108.9	8.9	1.000178
49.336	50.0	•1	•4	25.0	757.9	640.2	201.1	11.9	1.000175
49.306	48.8	•1	•2	22.6	745.0	639.3	199.8	15.2	1.000171
49.276	47.6	•1	•2	24.6	733.3	638.4	199.7	17.7	1.000168
49.246	46.4	•1	•3	26.6	721.3	637.5	201.0	16.3	1.000164
49.216	45.0	•1	•4	27.5	710.1	636.2	203.3	18.1	1.000162
49.186	43.9	•1	•5	20.7	699.0	635.0	205.0	17.3	1.000159
49.156	42.8	•1	•4	22.6	688.1	633.8	202.0	16.9	1.000156
49.126	41.6	•1	•2	24.6	677.5	632.9	197.8	16.6	1.000154
49.096	40.6	•1	•2	17.0	666.0	631.3	195.9	17.1	1.000151
49.066	39.7	•1	•6	36.9	656.6	629.0	194.4	17.7	1.000149
49.036	38.7	•1	•9	31.9	647.0	628.2	195.9	16.6	1.000146
49.006	37.6	•1	•2	32.2	637.4	626.0	197.4	19.4	1.000144
48.976	36.5	•1	•0	33.0	628.0	625.0	196.9	19.4	1.000142
48.946	35.5	•1	•0	36.9	618.7	623.4	200.0	20.1	1.000139
48.916	34.5	•1	•0	36.6	609.3	621.7	201.0	21.1	1.000137
48.886	33.5	•1	•0	35.0	600.5	620.0	212.0	22.1	1.000135
48.856	32.5	•1	•0	31.4	591.6	618.2	216.3	23.1	1.000133

TABLE 13. CONT'D.

At least one negative polarity value was used in this simulation.

1100 NRS EDT
1100 NRS EDT
1100 NRS EDT
1100 NRS EDT

TABLE 14
INTERPOLATION OF HUMIDITY
AND TEMPERATURE

at 0900 HIC CLOUDS
52°, 40°, 30°, 20°, 10°
100, 57, 32, 10, 0°

INTERPOLATION	TEMPERATURE	AT 1000 METERS ABOVE WATER	TEMPERATURE AT 1000 METERS ABOVE WATER	PERCENT DECREASING WITH ELEVATION	PERCENT DECREASING WITH ELEVATION	WATER TEMPERATURE AT 1000 METERS ABOVE WATER
0.90, 0.7	49.90, 51.	21.	6.5	30.	53.0	6.7
0.90, 0.5	66.61,	15.6	3.0	4.5	54.6	6.0
0.90, 0.3	84.39,	12.6	1.8	4.0	13.6	4.4
0.90, 0.1	104.25,	9.6	0.8	4.5	11.6	4.1
0.90, 0.0	123.21,	4.0	-1.4	2.2	9.6	7.1
0.90, 0.0	144.32,	-1.9	-1.9	2.0	1.6	7.6
0.90, 0.0	165.43,	-6.0	-27.0	17.	20.2	10.5
0.90, 0.0	191.09,	-10.0	-31.1	17.	19.5	17.3
0.90, 0.0	217.30,	-17.8	-36.3	18.	20.4	16.6
0.90, 0.0	245.73,	-26.1	-42.8	19.	20.4	17.5
0.90, 0.0	276.91,	-34.3	-48.5	22.	20.6	20.7
0.90, 0.0	314.89,	-40.7				